#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#### Before the Board of Patent Appeals and Interferences

#### In re the Application

Inventor : Rafael Meeusen

Application No. : 10/535,060

Filed : May 13, 2005

For : RECEIVER

#### REPLY BRIEF

On Appeal from Group Art Unit 2615

In Response to Examiner's Answer Dated July 29, 2008

In response to the Examiner's Answer mailed July 29, 2008, Appellant respectfully replies as follows:

#### I. Withdrawal of one ground of rejection regarding Claim 4

Appellant acknowledges that the rejection of claim 4 under 35 U.S.C. §102(b) in view of Therssen *et al.* (EP 512606 B1) (hereafter "Therssen") has been withdrawn by the Examiner.

### II. Rejection of claims 1-10 under 35 U.S.C. §102(b) in view of Wildhagen (U.S. 7,149,312)

In reply to the Examiner's Answer regarding the rejection of claims 1-10 under 35 U.S.C. §102(b) in view of Wildhagen (U.S. 7,149,312), <u>Appellant respectfully submits</u> that the grounds of rejection of claims 1-20 are erroneous and lack proper foundation for consideration by the Board of Appeals and Interferences for the reasons to be discussed, infra.

#### A. Lack of Foundation in Examiner's claim interpretation

Throughout the Examiner's answer, which is unclear as whether the answer is providing new grounds of rejection as in the Final Rejection using the same references but now based on different reasoning, or merely an answer in response to Appellant's pointing out of the shortcomings of the Examiner's previous reasoning, the Examiner relies on uncited extrinsic evidence that is not of record in the file wrapper, rather than the intrinsic evidence in the specification.

More particularly, the Examiner refers to a dictionary meaning of the term "shifting" in a strained interpretation of the claims that is nothing more than an attempt to force-fit the references so that they allegedly reading on his strained interpretation.

However, the Examiner has not even provided the Appellant or the Board of Appeals and Interferences with an identification of the Dictionary, yet he is using this dictionary as a primary reason for sustaining rejection of the claims. By not providing an offer of proof, the Examiner has not even shifted the burden of patentability to the Appellant, and the uncited dictionary term that he relies on throughout the Answer renders the Examiner's Answer as being fatally defective. The logic used in the Final Rejection must be defective as well for the same and other reasons to be discussed herein below.

Appellant notes that Merriam Webster Dictionary, Home and Office Edition,
Copyright 1998, Merriam-Webster Publishers (EXHIBIT A), lists nine different
definitions for the word root word "shift" and none of which happen to include the
term "varying" offered by the Examiner.

Appellant also notes the American Century Dictionary Copyright 1995 and Reissued 1997, Oxford University Press (EXHIBIT B), lists eight different definitions for the word root word "shift" and none of which happen to include the term "varying" offered by the Examiner.

While Appellant most strongly disagrees that extrinsic evidence was required to understand the definition of a claimed element, <u>did the Examiner merely sift through dictionary definitions until he found one to his liking?</u>

While Appellants have provided Exhibits A and B for consideration by the Board of Patent Appeals and Interferences consideration *only* as an offer of evidence to show

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these definitions did not include the word "varying", Appellant wants to clarify that it is our position that extrinsic evidence is unnecessary for interpretation of the present claims, and we have not set forth a dictionary definition in Exhibit A or B that we are requesting to the Honorable Board to use in reaching a decision.

While the Examiner has responded to the Appellants on page 7 of the Examiner's Answer that claims 5 and 9 do not recite what signal is being shifted, Appellant respectfully disagrees and submits that claim 5 recites, a "baseband stereo sum signal, a 19kHz stereo pilot, and stereo difference signal, which is a double sideband amplitude modulated on a suppressed 38kHz subcarrier" which would be understood by a person of ordinary skill in the art to mean that double-sideband suppressed-carrier transmission (DSB-SC) modulation is occurring, in which the wave carrier is not being transmitted, which distinguishes from other forms of A.M. for at least this reason. As the carrier signal is not transmitted, the frequency shifting pertains to the information bearing signal. The aforementioned explanation is inherent from the plain meaning of the claims by a person of ordinary skill in the art.

Accordingly, Appellants respectfully submit that it was improper for the Examiner to leap to extrinsic evidence (extrinsic evidence which he has not even properly cited), rather than interpret the plain meaning of the claims as would be understood by a person of ordinary skill in the art. While limitations from the specification may not be imported in to the claims, it is also true that the claims are interpreted in view of the specification, and not in a vacuum in and of themselves. The Examiner has not properly applied MPEP §2111, which states in pertinent part:

#### CLAIMS MUST BE GIVEN THEIR BROADEST REASONABLE INTERPRETATION

During patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." The Federal Circuit's en banc decision in Phillips v. AWH Corp., 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that USPTO employs the "broadest reasonable interpretation" standard.

Appellant respectfully submits that the present claims were afforded an interpretation inconsistent with the specification, and inconsistent with the interpretation than those skilled in the art would reach

#### B. Rejection in view of Wildhagen

Wildhagen, at col. 4, lines 45-54, cites that DPLL circuit 37 generates three carriers for coherent amplitude demodulation of the stereo difference signal and a carrier for the coherent pilot carrier detection. Appellant reaffirms that the DPLL 37 in Wildhagen does not perform frequency shifting of the time discrete multiplex signal itself. Thus, the claimed frequency shifting of the time discrete digital stereo multiplex signal in claim 1, and the frequency shifting circuits, as recited in claims 5 and 9 of the present invention, do not read on this aspect of Wildhagen. There is no frequency shifting in Wildhagen as in the claimed invention as would be understood by a person of ordinary skill in the art. A person of ordinary skill in the art understands the difference between frequency shifting as in the claimed invention and carrier generation as disclosed in applied in Wildhagen.

Appellant respectfully submits that in presently claimed invention, the converted time discrete digital stereo signal is shifted over a frequency of 19 kHz, providing that after the shifting, the pilot tone lies in D.C.. Accordingly, the shifted pilot tone can be extracted by a low pass filter (claims 3, 4, 6).

Advantageously, the 19 kHz shifted signal can be further shifted by another 19 kHz (claims 2, 5 and 9), wherein apparatus claims 5 and 9 recite two frequency shifting circuits connected in series with one another.

Based on the above, none of the present claims are anticipated by Wildhagen, as the reference fails to disclose all the claimed elements in any of Appellant's independent claims.

In accordance with MPEP 2131, under 35 U.S.C. §102, according to the United States Court of Appeals for the Federal Circuit, a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" (Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added)). Therefore, to reject a feature, which is alleged to patentably distinguish the claim containing such feature, as being anticipated by a prior art, the Office Action must establish that the same feature is present in the prior art reference. As Wildhagen fails to disclose each and every element as set forth in independent claims 1, 5, and 9, none of the present claims are anticipated by the reference.

#### C. Rejection in view of Therssen

Therssen, which was cited by the Appellant on page 1 of the specification, discloses that the phase-locking of a sample frequency of an analog to digital converter

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on a multiple of 38 kHz is performed, such that an ordinary finite impulse response (FIR) halfband filter with a -6db at half of the sampling frequency can provide symmetry.

Appellants reply to the Examiner's Answer that we maintain that Therssen fails to disclose or s render obvious the shifting of a time discrete stereo multiplex signal over a frequency of 19 kHz to extract at least one time-discrete signal. Therssen discloses the use of QMF circuits (time-discrete halfband low pass filter shown in FIG. 2) and the interpolation circuit. The block M2 does not shift the time discrete digital signal over a frequency of 19 kHz. Appellants, for the reasons noted previously herein, take at strong exception to the Examiner's strained interpretation of frequency shifting used in support of the rejection of claim 1 in the Examiner's Answer.

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III. CONCLUSION

In view of the above reply, Appellant respectfully requests that the Honorable

Board of Patent Appeals and Interferences reverse all grounds of rejection in the Final

Office Action of December 14, 2007. The references, taken individually or even in

combination, fail to anticipate or render obvious the subject matter of any of the present

claims. Therefore, reversal of all outstanding grounds of rejection is respectfully

solicited.

Respectfully submitted,

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By: Sieve Cha

Attorney for Applicant Registration No. 44,069

Enclosure:

Exhibit A

Mail all correspondence to:

Date: September 16, 2008

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#### **EXHIBIT A**

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# American entury **Jictionary**

- More than 60,000 Entries
   Reflecting the English of Today
- Fully Updated Geographical and Biographical Entries
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shep-herd /Shep'ord/ n. 1 (fem. shep' herd-ess) person employed to tend sheep 2 member of the clergy in charge of a congregation —e. 3 guide 4 herd (a crowd, etc.) [OE, rel. to Sheep, Herko]

sher-bet /SHər'bət/ n. frozen fruit-flavored dessert [Turk and Pers fr. Ar]

 Usage: Avoid the pronunciation "sher-bert," which many regard as unacceptable. The word has only one r, in the first syllable.

Sher-i-dan /Sher'ad-n/ 1 Richard Brinsley 1751–1816; Irish dramatist 2 Phillip Henry 1831–88; general of Union forces in American Civil War

sher-iff /sher'əf/ n. civil law-enforcement official [ult. fr. OE for 'shire official']

Sher-man /SHor man/ 1 Roger 1721-93; American statesman and patriot 2 William Tecumseh 1820-91; general of Union forces in American Civil War

Sher-pa /sHər'pə/ n. (pl. same or -pas) member of a people living on the Nepal-Tibet borders

sherry /SHer'ē/ n. (pl. ries) fortified wine orig. from S Spain [Xeres in Andalusia] she's /SHēz/ v. contr. 1 she is 2 she has

Shet'land Is'lands /Shet'land/ n. group of islands off the NE coast of Scotland

Shev-ard-na-dze /SHev'ərdnäd'zə/, Eduard 1928- ; former Soviet foreign minister; president of Georgia (1992- )

shib-bo-leth /SHib'ələTH/ n. 1 long-standing doctrine, phrase, etc., held to be true by a party or sect 2 password [Heb (Judg. 12:6)] shied /SHId/ v. past and past part, of SHY!

shield /shëld/ n. 1a piece of armor held in front of the body for protection when fighting b person or thing giving protection 2 shield-shaped trophy, protective screen on a machine, etc. —v. 3 protect; screen [OE]

shi-er /SHI'ər/ adj. compar. of SHY¹ shi-est /SHI'əst/ adj. superl. of SHY¹

shift /stift/ v. 1 (cause to) change or move from one position to another 2 change (gear) in a vehicle 3 get along, survive — n. 4 act of shifting 5a relay of workers b time for which they work 6 woman's straight unwaisted dress or petticoat 7 typewriter key for switching between capital and small letters, etc. 8 gear lever in a wehicle [OE]

shift'less adj. lacking resourcefulness; lazy shift'y adj. Colloq. (i-er, i-est) evasive; deceitful—shift'i-ly adv.; shift'i-ness n.

Shi-jia-shuang /shē'jē-ā'zhōō-āNG'/ n. (formerly Shih'chia'chuang') city in NE China. Pop. 1,068,400

Shi-ko-ku /SHikō'kōō/ n. island in SW Japan, S of Honshu

shill /Stil/ Slang. n. 1 person pretending to be a customer to attract others, as at an auction, gambling casino, etc. —v. 2 act as a shill el-lagh /Stila\*lē/ n. cudgel [for village in Ireland]

shil-ling /shil'inG/ n. former British coin and monetary unit worth one-twentieth of a pound [OE]

shil-ty-shal-ty /stil/estal/e/ v. (-lied, -ly-ing) be undecided; vacillate [fr. shall !?] shim /stim/ n. 1 thin wedge for filling space to make parts fit property —v. (shimmed, shim-ming) 2 fit or fill up with a shim

shim-mer /shim'ər/ v. 1 shine faintly —n. 2 faint light [OE]

shin /Stin/ n. 1 front of the leg below the knee —v. (shinned, shin-ning) 2 climb by clinging with the arms and legs [OE] shin-bone' n. TIBIA

shin'dig' n. Colloq. lively, noisy party [prob. fr. shindy brawl].

shine/Stin/ v. (shone or shined, shin-ing)
1 emit or reflect light; be bright; glow 2 (of
the sun, a star, etc.) be visible 3 focus the
light of (a lamp, etc.) 4 (shined, shin-ing)
polish 5 be brilliant; excel —n. 6 light;
brightness 7 polish [OE]

shin'er n. Colloq. black eye

shin-gle¹ /Shin'c'gəl/ n. 1 thin, rectangular tile used on roofs, etc., in overlapping rows 2 shingled haircut —n. (gled, gling) 3 roof with shingles 4 cut (hair) short [1. scindula] shin-gle² n. small, smooth pebbles, esp. on the seashore —shin'gly adj.

shin'gles n. pl. (treated as pl. or sing.) HERPES
ZOSTER [L. cingulum girdle]

Shin-to /SHin'tō/ n. Japanese religion based on the worship of ancestors —Shin'to-ism /-izəm/, Shin'to-ist /-ist/ n. [Chin: way of the gods]

shin'y adj. (i.er, i.est) I having a shine 2 (of clothing) with the nap worn off —shin'i-

ship /stip/ n. 1 large seagoing vessel 2 aircraft 3 crew of a vessel —n. (shipped, shipping) 4 put, take, or send, as in a ship, etc. 5a take in (water) over a vessel's side, etc. b remove (oars) from rowlocks 6 embark —ship'per n. [OE]

ship suffix forming nouns denoting: 1 quality or condition (hardship) 2 status, office, etc. (authorship) 3 tenure (chairmanship) 4 skill (workmanship) 5 members of a group (readership) [OE]

ship board adj. used or occurring on board a

ship'build'er n. person, company, etc., that constructs ships —ship'build'ing n. ship'mate' n. fellow member of a crew

ship'ment n. 1 amount of goods shipped 2 act of shipping goods, etc. ship'ping n. 1 transport of goods, etc. 2 ships,

as a navy, transports collectively, etc. 2 snip as a navy, transports collectively, etc. ship/shape' adv. & adj. trim; neat

ship'wreck' n. 1a destruction of a ship by a storm, foundering, etc. b ship so destroyed 2 ruin; destruction —v. 3 inflict shipwreck on 4 suffer shipwreck ship'wright' n. 1 shipbuilder 2 ship's carpen-

ship'yard' n. place where ships are built Shi-raz /shiräz'/ n. city in SW Iran. Pop. 848.300

848,300

shire /SHīr/ n. county in Great Britain [OE]

shirk /SHƏrk/ v. avoid (duty, work, etc.)

—shirk'er n. [Ger Schurhe scoundrel] shirr /star / n. 1 gathered threads in a fabric to form smocking — n. 2 gather (fabric) with parallel threads 3 bake eggs —shirr'ing n. shirr /start' / n. 1 loose-fitting tailored upperbody garment 2 keep one's shirt on Collekeep one's temper —shirt'less adj. [OE] shirt'atil' n. tails of a shirt below the waist

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#### **EXHIBIT B**

## **Nictionary** Merriam-Webster The

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2shell vb 1: to remove from a shell or husk 2: BOMBARD - shell-er n

shel·lac \sho-'lak\ n 1: a purified lac 2: lac dissolved in alcohol and used as a wood filler or finish 2shellac vb shel·lacked; shel·lack·ing 1: to coat or treat with shellac 2: to defeat decisively

shel-lack-ing n : a sound drubbing

shell bean n: a bean grown esp. for its edible seeds: also: its edible seed shell-fish \-ifish\ n: an invertebrate water animal (as

an ovster or lobster) with a shell shell out vb : PAY

shell shock n; a psychological and nervous disorder of soldiers resulting from traumatic experience in combat - shell-shocked \'shel-shakt\ adi

'shel-ter \'shel-tər\ n : something that gives protection : REFUGE

2shelter vb shel-tered; shel-ter-ing : to give protection or refuge to

shelve \\* shelv\ vb shelved; shelving 1: to slope gradually 2: to store on shelves 3: to dismiss from service or use 4: to put aside: DEFER (~ a proposal) shelving \shel-vin\ n : material for shelves; also

: SHELVES she-nan-i-gan \she-'na-ni-gen\ n 1 : an underhand trick

2; questionable conduct --- usu, used in pl. 3; highspirited or mischievous activity - usu, used in pl. shep-herd \she-pard\ n 1 : one who tends sheep 2

: GERMAN SHEPHERD 2shepherd vb: to tend as or in the manner of a shepherd shep-herd-ess \she-por-dos\ n : a woman who tends

sheep sheq-el \she-kəl\n, pl sheq-a-lim \she-kä-lim\ var of SHEKEL

sher-bet \"shər-bət\ n [Turk serbet, fr. Per sharbat, fr. Ar sharbah drink] 1 : a drink of sweetened diluted fruit juice 2 or sher-bert \-bort\: a frozen dessert of fruit juices, sugar, milk or water, and egg whites or gelatin

sherd var of SHARD sher-iff \\*sher-of\ n [ME shirreve, fr. OE scirgerefa. lit., shire reeve (local official)] : a county officer charged with the execution of the law and the preservation of order

sherry \"sher-\epsilon n, pl sherries [alter. of earlier sherris (taken as pl.), fr. Xeres (now Jerez), Spain]: a fortified wine with a nutty flavor

Shet-land pony \shet-land-\n: any of a breed of small stocky shaggy hardy ponies shew \sho\ Brit var of show

shi-at-su also shi-at-zu \she-"at-su\ n [short for Jp shiatsuryōhō]; a finger massage of those bodily areas

used in acupuncture shib-bo-leth \shi-ba-lath\ n [Heb shibboleth stream; fr. the use of this word as a test to distinguish the men of Gilead from members of the tribe of Ephraim, who pronounced it sibböleth (Judges 12:5, 6)] 1 : CATCH-WORD 2 2: language that is a criterion for distinguish-

ing members of a group 1shield \\*shčld\ n 1 : a broad piece of defensive armor carried on the arm 2: something that protects or hides

2shield vb: to protect or hide with a shield syn protect, guard, safeguard shier comparative of SHY

shiest superlative of SHY

'shift \"shift\ vb 1 : EXCHANGE, REPLACE 2 -: to change place, position, or direction : MOVE; also : to change gears 3: GET BY, MANAGE

2shift n 1 : SCHEME, TRICK 2 : a woman's slip or looses fitting dress 3: a change in direction, emphasis, or attitude 4: a group working together alternating with other groups 5: TRANSFER 6: GEARSHIFT

shift-less \\*shift-los\ adi : LAZY, INEFFICIENT - shiftless-ness n

shifty \"shif-te\ adj shift-i-er; -est 1 : TRICKY; also

: ELUSIVE 2 : indicative of a tricky nature (~ shih tzu \shēd-\zū, \shēt-\sū\n, pl shih tzus als tzu often cap S&T: any of a breed of small legged dogs of Chinese origin that have a short zle and a long dense coat

shill \shil\ n : one who acts as a decoy (as pitchman) - shill vb

shil-le-lagh also shil-la-lah \sho-'la-le\ n [Shill town in Ireland] : CUDGEL, CLUB

shilling \shi-lin\ n --- see MONEY TABLE shilly-shally \shi-le--sha-le\ vb shilly-sha shilly-shally-ing 1 : to show hesitation or lack cisiveness 2: to waste time

shim \shim\n: a thin often tapered piece of. metal, or stone used (as in leveling) to fill in shim-mer \shi-mar\vb: to shine waveringly or ulously : GLIMMER syn flash, gleam, glint, sp glitter - shimmer n - shim-mery adj

shim my \" shi-me\ n, pl shimmies : an abnormal tion esp. in the front wheels of a motor vehic shimmy vb

shin \shin\n: the front part of the leg below the 2shin vb shinned; shin-ning : to climb (as a no gripping alternately with arms or hands and le shin-bone \"shin-abon\ n : TIBIA

1shine \"shin\ vb shone \"shon\ or shined; shin to give or cause to give light 2 : GLEAM, GLE to be eminent, conspicuous, or distinguished her a chance to ~) 4 : POLISH (~ your shoes) 2shine n 1 : BRIGHTNESS, RADIANCE 2 : LUSTER LIANCE 3: fair weather : SUNSHINE (rain or ~)4 ING, FANCY (took a ~ to them) 5 : a polish gir shoes

shin-er \\*shi-nor \ n 1 : a small silvery fish; esp : numerous small freshwater American fishes n to the carp 2 : a discoloration of the skin arou eye due to bruising

shin-gle \shin-gal\ n 1: a small thin piece of but material used in overlapping rows for covering or outside wall 2 : a small sign

2shingle vb shin-gled; shin-gling ; to cover with

3shingle n: a beach strewn with gravel; also: gravel (as on a beach)

shin-gles \ shin-gəlz \ n : an acute inflammation spinal and cranial nerves caused by reactival the chicken pox virus and associated with ent and pain along the course of the affected nere shin-ny \\*shi-ne\ vb shin-nied; shin-ny-ing : se shin-splints \shin-splints\n sing or pl: a cor marked by pain and sometimes tenderness and

ing in the shin caused by repeated small injumuscles and associated tissue esp. from runn Shin to \shin 10\n: the indigenous religion of consisting esp. in reverence of the spirits of forces and imperial ancestors - Shin-to Shin-to-ist n or adj

shiny \shi-në\ adj shin-i-er; -est : BRIGHT, RA also: POLISHED

ship \ship\n1: a large oceangoing boat 2: officers and crew 3 : AIRSHIP, AIRCRAFT, SPAC 2ship vb shipped; ship-ping 1 : to put or reconstruction a ship for transportation 2 : to have transportation. by a carrier 3: to take or draw into a boat (

water) 4: to engage to serve on a ship

per n per n . ship \ship\ n sudjix 1 : state : condition of (friendship) 2 : office : dignity : profession (clerkship) 3 : art : skill (norsemanship) 4 : showing, exhibiting, or embodying a guildright (township) 5 : one entitled to a (specified) nor appellation (his Lordship) 6 : the body of changaged in a specified activity (readership).

ship-board \\*ship-ibord \ n : SHIP ship-build-er \- bil-dor\ n : one who designs shins